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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,117

05/10/2007

Ernst-Werner Wagner

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07/14/2010

FRASER CLEMENS MARTIN & MILLER LLC  
28366 KENSINGTON LANE  
PERRYSBURG, OH 43551

EXAMINER

CERNOCH, STEVEN MICHAEL

ART UNIT

PAPER NUMBER

3752

NOTIFICATION DATE

DELIVERY MODE

07/14/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sloan@fraser-ip.com  
clemens@fraser-ip.com  
tiede@fraser-ip.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,117	<b>Applicant(s)</b> WAGNER, ERNST-WERNER	
	<b>Examiner</b> STEVEN M. CERNOCH	<b>Art Unit</b> 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 24-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

The specification objection is withdrawn.

### ***Claim Rejections - 35 USC § 112***

The rejection under 35 USC 112, first paragraph is hereby withdrawn.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 24-29, 31-41 and 43 rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pub No 2002/0040940) in view of Mitchell et al. (US Pat No 6,095,251).

Re claim 24, Wagner et al. shows an inerting method for extinguishing a fire in a closed room (paragraph 0002) in which the oxygen content in the closed room is reduced within a given time (0013) to a specific inerting level, wherein said inerting level is kept to a certain level within a given regulation range, in particular the re-ignition prevention level (0004); said inerting level corresponds to said re-ignition prevention level (paragraph 0004); an upper threshold of oxygen content in the regulation range is smaller than or, at maximum, equal to the re-ignition prevention level (paragraph 0004).

Wagner et al. does not teach the time for lowering the oxygen content to said inerting level is preset; or the time for lowering the oxygen content to the inerting level is contingent upon the base inertization level at the time the flooding begins.

However, Mitchell et al. does teach a preset time and that the time to do so is contingent upon the base inertization level at the time the flooding begins (col. 2, lines 42-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the predetermined time of Mitchell et al. in order to prevent re-ignition (col. 2, lines 31-32).

Re claim 25, Wagner et al. shows wherein the amplitude of the oxygen content in the regulation range has a height of approximately 0.2% by volume (paragraph 0004).

Re claim 26, Wagner et al. shows wherein the regulating of said oxygen content for lowering said oxygen content to the inerting level and/or for keeping said oxygen content at the re-ignition prevention level is performed by taking into account said air exchange rate of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 27, Wagner et al. shows wherein the regulating of said oxygen content for lowering said oxygen content to the inerting level and/or for keeping said oxygen content at the re-ignition prevention level is performed by taking into account said air exchange rate of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 28, Wagner et al. shows wherein a calculating of the amount of extinguishing agent for lowering said oxygen content to said inerting level and/or for keeping said oxygen content at said re-ignition prevention level is performed by taking

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into account an air exchange rate of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 29, Wagner et al. shows wherein a calculating of the amount of extinguishing agent for lowering said oxygen content to said inerting level and/or for keeping said oxygen content at said re-ignition prevention level is performed by taking into account an air exchange rate of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 31, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area, wherein a regulating of the supply of oxygen-displacing gas takes into consideration the air/gas pressure in the target area (paragraph 0005).

Re claim 32, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area, wherein a regulating of the supply of oxygen-displacing gas takes into consideration the air/gas pressure in the target area (paragraph 0005).

Re claim 33, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area, wherein a regulating of the supply of oxygen-displacing gas for lowering the oxygen content to said inerting level and/or for maintaining said oxygen content is performed by taking into account the base inertization level at the time the flooding begins (paragraph 0004).

Re claim 34, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area, wherein a regulating

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of the supply of oxygen-displacing gas is performed by taking into account either said current oxygen content or the current oxygen-displacing gas concentration, in the target area (paragraph 0013).

Re claim 35, Wagner et al. shows the regulating of a supply of oxygen-displacing gas is performed by taking into account said oxygen content prior to beginning the lowering of said oxygen content to the specific inerting level (paragraph 0013).

Re claim 36, Wagner et al. shows the regulating of the supply of oxygen-displacing gas is performed according to a specific flooding progress pattern (paragraph 0013).

Re claim 37, Wagner et al. shows the oxygen content in the target area is lowered by introduction of an oxygen-displacing gas from a reservoir (paragraph 0013).

Re claim 38, Wagner et al. shows in which the oxygen-displacing gas is made available by means of a production system (paragraph 0013).

Re claim 39, Wagner et al. shows wherein the oxygen-displacing gas for lowering the oxygen content to the specific inerting level is provided from a reservoir and the oxygen-displacing gas to keep the inerting level at the re-ignition prevention level is provided from a production system (paragraph 0013).

Re claim 40, Wagner et al. shows wherein the re-ignition prevention level is determined dependent on the characteristic fire load of the target area (paragraph 0005), especially dependent on the material present within said target area (0004).

Re claim 41, Wagner et al. shows the re-ignition prevention level (R) is determined dependent on any given equipment and/or machines accommodated within the target area and their operating states (paragraph 0024).

Re claim 43, Wagner et al. teaches lowering the oxygen content but does not teach that lowering the oxygen content begins at Time  $t_0$  of an early fire detection.

However, Mitchell et al. does teach that lowering the oxygen content begins at Time  $t_0$  of an early fire detection (col. 2, lines 40-42).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the predetermined time of Mitchell et al. in order to prevent re-ignition (col. 2, lines 31-32).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pub No 2002/0040940) in view of Mitchell et al. (US Pat No 6,095,251) as applied to claims 24-29, 31-41 and 43 above, and further in view of Saum et al. (US Pat No 5,128,881)

Re claim 30, Wagner et al. does not specify wherein the air exchange rate of the target area corresponds to an  $n_{50}$  value of the target area.

However, Saum et al. discloses a blower door for a total flooding fire extinguishing system. A blower door being the commercially available and known diagnostic tool used to measure the  $n_{50}$  value.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the

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blower door of Saum et al. as blower door's are known in the art and a commercially available diagnostic tool.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pub No 2002/0040940) in view of Mitchell et al. (US Pat No 6,095,251) as applied to claims 24-29, 31-41 and 43 above, and further in view of Ford et al. (US Pat No 6,029,751)

Re claim 42, Wagner et al. teaches lowering the oxygen content is lowered depending on the equipment present in the target area but does not teach that the equipment is brought into a pre-defined operational state prior to lowering said oxygen content.

However, Ford et al. does teach that the equipment is brought into a pre-defined operational state prior to lowering said oxygen content (col. 5, lines 23-25).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the pre-defined operational state of the equipment of Ford et al. shut it down (col. 5, lines 19-28).

### ***Response to Arguments***

Applicant's arguments filed 5/4/2010 have been fully considered but they are not persuasive. While applicant is correct in column 2, lines 40-42 stating that "generally from about six to seven seconds are require to inert a fire," these are not the lines cited by the examiner for previous claims 12 and 13, now independent claim 24. Lines 42-44 however state that "therefore, the inerting agent must be able to extinguish the fire and



keep it out for a predetermined time, which is typically aircraft specific” and do cover the claimed limitations.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN M. CERNOCH whose telephone number is (571)270-3540. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. M. C./  
Examiner, Art Unit 3752  
7/8/2010

/Len Tran/  
Supervisory Patent Examiner, Art Unit 3752